

## ABSTRACT

A precipitation hardened Co-Ni based heat-resistant alloy is composed of, all by weight, not more than 0.05% of C; not more than 0.5% of Si; not more than 1.0% of Mn; 25 to 45% of Ni; 13 to 22% of Cr; 10 to 18% of Mo or 10 to 18% of Mo + 1/2W; 0.1 to 5.0% of Nb; 0.1 to 5.0% of Fe; and further at least one kind of 0.007 to 0.10% of REM; 0.001 to 0.010% of B; 0.0007 to 0.010% of Mg and 0.001 to 0.20% of Zr; the balance of substantially Co and inevitable impurities, and  $\text{Co}_3\text{Mo}$  or  $\text{Co}_7\text{Mo}_6$  is precipitated in boundaries between a fine twin structure and a parent phase.